MARKETING NEWS

MPEDA participated in the International Boston Seafood Show

International Boston Seafood Show (IBSS) was held in Boston Convention & Exhibition Center, Boston, USA from 20th March to 22nd March 2011. IBSS, is organized by Diversified Business Communications, which also organizes the European Seafood Show at Brussels, Belgium. IBSS, can be termed as the biggest seafood show in North America, by number of exhibitors, visitors and the range of products. This year IBSS was co-located with New England Food show, a regional trade event in food service. Visitor of IBSS could also visit this show.

MPEDA had been participating in IBSS for several years now. In this Edition of IBSS, MPEDA had taken 600 sq.ft. space (Booth No.1157) at a vantage point. India Pavilion in IBSS was designed by an acclaimed architect and was got executed by the official stall contractor of IBSS. Design of the India Pavilion was appreciated by visitors and had been reference point for many visitors to meet/locate.

In the previous year IBSS, M/s. Gadre Marine had exhibited in the Indian Pavilion along with MPEDA. In the current year IBSS, there are three reputed seafood exporters, M/s. West Coast, M/s. Dish Hospitality and M/s. Tandel's (Sreedutt Aquaculture) participated in Indian Pavilion along with MPEDA.

MPEDA had nearly 150 kgs of seafood samples on display, which were procured from all major exporters from India to USA market. Focus was on the value-added products, which had broad portfolio to be showcased. Product range in MPDA stall had drawn a huge crowd. More than 300 trade enquiries were placed in the IBSS. Majority of the visitor to MPEDA stall, were keen to import seafood from India on a regular basis. There was considerable interest to source Indian L.vannamei. Range of products were on display providing a glimpse of Indian seafood strength, prompted visitors to do business with Indian seafood exporters. A good number of visitors were ready to source from India for the first time.

A special mention is to be made to M/s. West Coast and M/s. Dish Hospitality, who had put a combined stall. Cooking arrangement was made, to serve their product to their customers and visitors to the Indian pavilion. Their
product range was widely appreciated and the recognition came in by the way of award for "best New food service product" at the seafood excellence awards. M/s. Tandel made an impressive show in IBSS. They are a strong player in the EU market, now entering the USA market, with shrimp products from their integrated facility. M/s. Tandel had got several leads and business proposals for their products. All the three participants in India Pavilion had very good business, which made their participation fruitful.

Despite continuing anti dumping duty on warm water shrimps (from India and other South East Asian countries), USA market, had been showing recovery. USA had regained its position as the 2nd largest market for Indian seafood exports after EU with 16% share in value terms. Indian seafood has lot of potential to increase market share, with its range of innovative products. The fact that Department of Agriculture (USDA) and Health and Human Services (US HHS) had given recommendations advising Americans to double the amount of seafood they eat because of its health benefits, offers wide scope for increase in exports to USA market, which is the third largest after China and Japan.

Ms. Leena Nair, Chairman, Shri N. Ramesh, Director (Marketing) Shri J. Ramesh, Secretary, MPEDA and Smt. Shashikala, TPO, New York, MPEDA attended IBSS.
**FOCUS AREA**

**Landmark achievement in Scampi (Giant Freshwater Prawn) Research by RGCA**

Rajiv Gandhi Centre for Aquaculture (RGCA), MPEDA, Ministry of Commerce and Industry, Govt of India, which had taken up an R&D project on Scampi broodstock development at Konathanapadu, Kankipadu Mandal, Krishna District, AP, successfully developed the First Proven Neofemale in the country and achieved production of all male progeny of the Giant fresh water prawn (Scampi - *Macrobrachium rosenbergii*) for the 1st time in the subcontinent - an enviable achievement unmatched by any research organization in the nation so far.

The technology developed at RGCA involves sex reversal of healthy Scampi males into functional females (called as Neofemales) through microsurgical interventions and crossing these females with normal males to produce all male progeny.

One of the major challenges faced by the Scampi farmers today is the differential growth which causes low survivals and poor yields. To overcome this, the Scampi farmers presently segregate males and females painstakingly at the farm and grow only males that grow to larger sizes in quicker time when compared to the females. Therefore, the technology, now developed by RGCA could easily resolve this major challenge of differential growth faced by the Scampi farmers and provide the much needed boost to the Scampi farming in the country which has
The total fishermen population of Veraval fishing industry is around 70000 and around 2091 trawlers and 600 small fiber glass fishing vessels are operating from the harbour. NETFISH has been organizing various extension training programmes at this harbour for the last four years with a view to educate the fisher folk on hygienic handling of fish, responsible fishing practices and conservation of marine fishery resources, etc. Besides various programmes conducted, NETFISH also organized a mass boat cleanup programme at Veraval harbour on 29/03/11 to educate fisher folk that cleaned fishing vessels is also an integral part in the quality management. This programme was inaugurated by the Treasurer, Akhil Gujarat Machhimar Maha Mandal.

NETFISH provided liquid soap, brushes, wipers etc to the fishing vessels participated in the programme. Department of fisheries, Gujarat also joined with NETFISH to make the programme a grand success and they provided sufficient water and labours to clean the boats. Post Graduate students of college of Fisheries, Veraval also took part in the programme and they educated crew members on importance of cleaning of fishing vessels, crates and fish contact surfaces and also on personal hygiene. Around 63 fishing vessels participated in the programme.

Shri. B. A. Yadav, Education & Rural Development Foundation Trust, member NGO of NETFISH made commendable service to make the programme a success.
NETFISH provided ten big trolleys for the workers of Baypore harbour as part of its efforts to ensure hygienic handling of seafood at the fishing harbours. These trolleys can carry around 12 to 14 crates at a time and will be highly useful to carry fish from boats to auction hall, ice from vehicles to boats, auctioned fish to vehicles, etc. The introduction of trolleys can eliminate the practice of carrying fish and ice over head in bamboo baskets. This will also pave the way for the complete replacement of bamboo baskets from the harbour.

NETFISH has been organizing wide campaigns during the last three years at Baypore harbour under the leadership of its State Coordinator to upgrade the quality standards of seafood and also to ensure conservation and sustainable fishing practices. Various training classes, street-plays, documentary shows and meetings of stake holders have been arranged to create awareness on various topics related to quality management and sustainable fishing.

These trolleys were introduced at this harbour mainly to ensure the hygienic handling of the products and also to ease the work of the workers.

Trolleys were distributed to workers by NETFISH State Coordinator, Smt. Aliamma Kuriachan in a function organized by Harbour Vikasana Samiti on 19-04-2011 at Baypore harbour. The function was inaugurated by Smt. P. Jalaja, Councilor of the Kozhikode Corporation and was presided over by Shri. Preman, President, Harbour Vikasana Samiti.
FOCUS AREA
QUALITY FRONT

MPEDA organised Training Programmes on Seafood HACCP at various Centres

A) PROGRAMME AT COCHIN

MPEDA, Regional Office, Cochin organized a 4-day training programme on Seafood HACCP for the benefit of technical personnel working in the seafood processing establishments in the state of Kerala. The training commenced on 8th February 2011 at the Center Hotel, Cochin. The programme was inaugurated by Shri VL Patrick, Deputy Director (QC), MPEDA, HO, Kochi. Thirty-four participants representing 32 seafood processing establishments in the region attended the programme.

The course was conducted based on the standardized curriculum and guidance tools approved by the USFDA. Sessions on Sanitation Control procedures, Traceability and related Regulations of EU, US and Government of India were also dealt with. Apart from the above there were work sessions followed by presentations / evaluation. Shri K. Sasidharan Nair, Assistant Director (QC), Shri S. S. Shaji, Assistant Director (Regional Office, Kochi) and Shri. V Vinod, Technical Officer (QC), MPEDA were the faculty members.

The Course Certificates were distributed to the participants by the Chief Guest, Shri.K G Lawrence, President of the Seafood Exporter's Association of India (SEAI), Kerala region during the valedictory function held on 11/2/2011. Smt. K.M. Veena, Joint Director, Regional Office, Kochi and Shri.Joy Ipe Kurian, Joint Director (QC), were also present on the occasion.

B) PROGRAMME AT GOA

MPEDA, Sub Regional Office, Goa organised a 4-day HACCP (Basic) Training Programme from 8 - 11, March 2011 at Hotel Manoshanthi, Panaji, Goa for the benefit of the Seafood Processing Technologists and Executives of seafood processing establishments. The training programme was inaugurated at 10 a.m. on 8th March by Sri. M.M. Ibrahim, Regional President, SEAI (Goa Region). In his inaugural address he emphasised the need for such training programmes in order to familiarise with the stringent quality requirements of the
Shri M.M. Ibrahim, Regional President, SEAI (Goa Region) delivering inaugural address

Shri K.S. Nair, Asst. Director (QC), MPEDA conducting a session.

Felicitation stressed the need for information exchange among the technical personnel in the trade which would facilitate upgradation of knowledge acquired. Sri K.S. Nair while addressing the participants during the inaugural session requested all the participants to take maximum advantage of the training programme. Earlier Dr. A. Ansar Ali, Assistant Director, MPEDA SRO, Goa welcomed the dignitaries of the seafood trade, faculty members and the participants attending the training programme. Altogether twenty seven Technologists/
Training Programme on
Eco-friendly and Sustainable Shrimp Farming
Conducted at Jambusar, Dt. Bharuch, (Gujarat)

MPEDA, Regional Centre (Aquaculture), Valsad organized a five-day training programme on "Eco friendly and Sustainable shrimp farming" at Jambusar, Dist. Bharuch from 21-25, March 2011 for the benefit of shrimp farmers from Jambusar Taluk of Bharuch District. 24 farmers reported for the training programme. The objective of the training programme was to promote development of shrimp farming in Surat district.

On the first day of the programme, after inauguration, MPEDA officials introduced the trainees to various methods of culture activity of shrimp farming. The life history of shrimp, Pond preparation, seed stocking in the ponds, seed selection, packing, Transportation, acclimatization and stocking were explained.

On 22.03.2011, the 2nd day of the programme, MPEDA officials explained the role of MPEDA in the field of shrimp farming in Gujarat. Technical aspects such as criteria for site selection, Farm construction, water quality management and Feed management were briefed.

Third day of the training was exclusively kept for farm visit for practical exposure of the trainees. The trainees were taken to the shrimp farm of Shri Ismail Mohamad Bagas located at Khanpurdeh Village, Dist. Bharuch. The practical aspects of farm construction, management and use of field equipments for assessment of various water quality parameters were explained to the trainees. Shri Ismail Bagas, owner of the farm has also shared his experiences in shrimp farming with the trainees.

On the 4th day of the training, classes were taken on Shrimp disease, HACCP for shrimp farms, the harvest and post harvest management, economics of shrimp farming as well as the Land allotment policy and procedure to acquire Govt. land for shrimp farming were explained.

On the last day of the programme, i.e. on 25-3-2011, the trainees were made aware of the guidelines of the Coastal Aquaculture Authority, abuse of antibiotics in aquaculture and its effects on aquaculture industry and status and scope of scampi farming in Gujarat region were discussed.

A group discussion was held in the afternoon of the concluding day. Officials of MPEDA clarified the doubts of the trainees. Trainees were also made aware of MPEDA Schemes for shrimp farmers and schemes for societies and pre-harvest test procedures. Training was concluded with the valedictory programme. Certificates were awarded to 20 candidates who have successfully completed the training programme.
Training Programme on

Eco-friendly And Sustainable Shrimp Farming
Conducted at Olpad, Dist. Surat (Gujarat)

MPEDA, Regional Centre (Aquaculture), Valsad organized a 5-day training programme on "Eco friendly and Sustainable shrimp farming" at Olpad, Surat Dist. from 28 February to 4th March 2011 for the benefit of the farmers from Surat District. 22 farmers attended the training programme. The objective of the training programme was to promote development of shrimp farming in Surat district.

The inaugural function was held on 28th February 2011. After the inaugural function, technical classes on various subjects were taken by MPEDA Officials on subsequent days.

Classes were conducted on technical aspects such as criteria for site selection, engineering as well as biological aspects of shrimp culture. Trainees were also made aware of Aquaculture Authority guidelines, MPEDA’s demonstration programmes, Society registration and its importance; traceability certificate, pre-harvest tests, non-use of antibiotics in aquaculture, good management practices (GMPs) and HACCP.

Trainees were later taken to shrimp farm located at Saras Village, Taluka Olpad, Dist. Surat for practical exposure. The practical aspects of farm construction, management and use of field equipments for assessment of various water quality parameters were explained to trainees by MPEDA officials. The farmer also shared his experiences in shrimp farming with the trainees.

On 4th March 2011, i.e., the concluding day, a group discussion was held in the afternoon in which Officials of MPEDA clarified the doubts of the trainees.

Training was concluded with the valedictory programme. Certificates were presented to 19 candidates who have successfully completed the training programme.
Inter State Study Tour Organised by MPEDA, Regional Centre (Aqua), Bhubaneswar to Bhimavaram & Vijayawada, (AP)

MPEDA, RC(Aq), Bhubaneswar is promoting scampi culture for export production and establishment of scampi hatcheries in the State under Mission Mode an Inter-State Study Tour was undertaken to Bhimavaram & Vijayawada in Andhra Pradesh from 1 - 5, March 2011 for the benefit of 09 prospective scampi farmers of the State. Dr A Anand Kumar, Junior Technical Officer (Aq) accompanied the farmers who visited different scampi farms, hatcheries and feed mills in and around Bhimavaram & Vijayawada, Andhra Pradesh.

RC (Aqua), Vijayawada & SRC (Aqua), Bhimavaram extended their full cooperation by sparing technical / field staff to accompany the visiting team to farming areas, hatcheries, feed mills etc. The visiting farmers could get themselves exposed to various aspects of scientific practices followed by the Andhra Pradesh farmers and could interact with the farmers/officials/feed mill owners/processing unit owners etc. of Andhra Pradesh. First day i.e on 02.03.2011 in the forenoon the MPEDA Quality Control Laboratory at Bhimavaram was visited by the farmers. The quality issues and regulations by the importing countries and the role of MPEDA for mitigating the problems etc were explained by MPEDA officials.

Programme in suitable areas. Around 1000 ha area have been brought under scampi culture in different cluster in coastal and inland areas of Orissa. Besides, poly-culture of scampi is also practised in the village tanks, large water bodies, reservoirs, fish ponds etc. Apart from Training Programmes, Awareness Campaigns on scampi culture etc. Regional Centre (Aq) organizes Inter State Study Tour for scampi farmers every year to different parts of the country to expose the farmers to the scampi farming activity of neighbouring States and to interact with their counterparts in in those states.

During the financial year 2010-11
The team then visited M/s Uno Feeds, Komrada, Bhimavaram and had discussions with Shri T C V Narasimha Rao, Partner of the Company. He explained the farmers on the advantage of floating feed and the types of floating feed being produced depending on the percentage of protein content in the feed etc. Farmers witnessed the production of feed in the feed mill. Also the farmers witnessed the harvest of Pangasius at the demo farm of M/s Uno Feeds.

M/s Jagadish Marine, Bhimavaram, a certified organic processing plant at Komrada, Bhimavaram was also visited by the farmers and the entire process was explained by Shri Bijaya Anand, Production Manager. The farmers also visited the fish farm of K Subramaniyam, Virvasam and important tips were noted by the farmers for improvement in the culture practices. In the late evening the participants visited the fish packing unit of M/s Krishnam Raju Ice & Cold Storage, Peddmiram, Bhimavaram and witnessed the packing of fishes which are transported to Orissa, West Bengal & North-East.

In the forenoon of 03.03.2011, the participants visited the farm of Shri G Narayan Murty member of Sri Subramaneswar Aqua farmers Welfare society, Mogalthur. Shri Murty explained the culture technique followed by him such as seed selection, nursery rearing, water quality management, feed management, male female identification & segregation. Also he explained on the seabass demonstration conducted by MPEDA in his farm and showed some fishes through cast netting. Later the team visited Srinivasa Aqua
Farmers Welfare Society, Kattupalem. The society is having 22 farmers & 32 ponds and met Shri K Badrinarayan, President who explained the culture techniques followed by the members and the benefit of forming aqua society in the area.

Also the farmers visited Sainadha Aquafarmers Welfare Society, Velivalla where the Organic scampi farming practice was carried out in the society ponds. Shri Fanindra Meher, President of the said society explained the advantage of Organic farming and the procedures adopted for the same.

On 04.03.2011 the farmers visited the facility of Rajiv Gandhi Centre for Aquaculture (RGCA) at Kankipadu, Vijayawada established for the production of all male scampi seeds. Dr D V S N Raju, APM explained procedures adopted and the benefits to the farming community. Different components of the hatchery were visited and their functions were explained by Dr Raju.

In the afternoon, the scampi & tilapia brood stock development project of RGCA at Manikonda was visited by the farmers and they were briefed by Shri A Naidu, Asst. Project Manager & Shri Vijayakumar, Project Manager. Also the farmers witnessed the different progeny/strains of scampi, GIFT tilapia & breeding unit of tilapia at the RGCA facility.

The Marine Products Export Development Authority (MPEDA) presented a request to Ministry of Commerce for exemption of Customs Duty for import of finfish feed. Based on the discussion had with DGFT, the Customs Authorities considered the request and in the Finance Bill 2011 and as per Customs Notification No.21/2011-Customs dated 1-3-2011, finfish feed is fully exempted from Customs Duty. The relevant portion of the Notification is given below.

<table>
<thead>
<tr>
<th>NOTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 21/2001-Customs New Delhi, the 1st March, 2011</td>
</tr>
</tbody>
</table>

G.S.R. (E). In exercise of the power conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following further amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No.21/2002-Customs, dated the 1st March, 2002, published in the Gazette of India, Extraordinary vide number G.S.R. 118(E), dated the 1st March, 2002, namely:-

In the said notification,-
(x) after S.No. 53A and the entries relating thereto, the following S.No. and entries shall be inserted, namely:-

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;53B</td>
<td>2306</td>
<td>De-oiled rice bran oil cake</td>
<td>Nil</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>53C</td>
<td>2301 20, 2309 90 32, 2309 90 39</td>
<td>Finfish feed</td>
<td>Nil</td>
<td>--</td>
<td></td>
</tr>
</tbody>
</table>

Sd/-
(Sanjeev Kumar Singh)
Under Secretary to the Government of India

Note: The principal notification No.21/2002-Customs, dated the 1st March, 2002 was published in the Gazette of India, Extraordinary, vide number G.S.R. 118(E), dated the 1st March, 2002 and was last amended vide notification No.4/2011-Customs, dated the 27th January, 2011, published vide number G.S.R. 52(E), dated the 27th January, 2011.

These Orders facilitate the finfish growers import quality Finfish feed at competitive price. It is expected that this would boost the production of Finfish through aquaculture for export.
Awareness Campaign on
Organic Scampi Culture & Its Export Demand
Held at Barandua, Dist: Bhadrak (Orissa)

MPEDA, RC (Aqua), Bhubaneswar organized an Awareness Campaign on "Organic Scampi Culture & its export demand" at Barandua, Dist: Bhadrak on 17.03.2011. 55 farmers attended the programme. Besides MPEDA Officials, Shri Pitamber Mohanty, Head Master, and Shri Dibakar Senda, Teacher, Laxmi Dei Nodal U P School, Barndua, Bhadrak addressed the farmers during the programme.

Addressing the participants MPEDA Officials explained in detail the practical approach to scampi farming and encouraged the farmers to go for scampi farming. They advised the farmers to construct the ponds in scientific way to get successful crop. Further, the nursery rearing, segregation of male & female, all male culture, cluster farming, and Good Management Practices for better result were explained.

Shri Pitamber Mohanty, Head Master, and Shri Dibakar Senda, Teacher, Laxmi Dei Nodal U P School also spoke on the occasion and thanked MPEDA for conducting such valuable programme in their area.

One Day Seminar on
Diversification in Aquaculture for Export Production
Organized at Jagatsinghpur in Orissa

To create awareness among shrimp/scampi farmers/feed dealers/officials on diversifications in aquaculture especially on culture of seabass & mud crabs one day seminar on 'Diversification in Aquaculture for Export Production' was organized by MPEDA, RC(Aq), Bhubaneswar, at 'Sadbhavana Sabha gruha' of Collectorate Office, Jagatsinghpur on 18.03.2011. 120 participants including shrimp/scampi farmers/Aqua shop dealers/officials participated in the programme. The programme started with registration of participants followed by Inaugural and Technical sessions.

MPEDA Officials highlighted the role of MPEDA in the development of shrimp/scampi farming in Orissa state and the need for diversification with seabass and mud crab culture in their farms.

The MPEDA Officials requested farmers to produce quality products without using banned antibiotics & explained how MPEDA is trying to check the abuse of antibiotics in aquaculture by establishing Quality Control Labs to address the quality issues of marine products meant for exports. At the same time he emphasized upon the formation of aqua societies in different shrimp farming areas for a co-operative approach for farming which is the
solution for preventing disease and avoiding use of antibiotics in a responsible way.

Shri Ramachandra Patra, Project Director, District Rural Development Agency (DRDA), Jagatsinghpur inaugurated the programme by lighting the ceremonial lamp. He thanked MPEDA for organizing the seminar at Jagatsinghpur District which was essential for the benefit of all the stake holders. He suggested for an integrated approach for the development of fishery sector by MPEDA/BFDA/Bankers. He also explained how diversification in Aquaculture with integrated approach will help in the upliftment of rural folk.

Shri Muralidhar Mallick, Sub-Collector, Jagatsinghpur who was the Guest of Honour congratulated MPEDA for organizing the seminar in such a big way for the benefit of aqua farmers of Jagatsinghpur District. ‘Jagatsinghpur is basically an agriculture oriented District and people of this District do not have enough knowledge in aquaculture especially in diversification of species’, he said. He also appreciated the concept of formation of aqua societies and requested farmers to take up diversifications instead of relying only on shrimp culture. He assured farmers all possible assistance.

Shri Pabitra Kumar Behera, DFO, Jagatsinghpur in his speech requested farmers to adopt BMP’s in shrimp/scampi culture. At the same time he requested all shrimp farmers to register their farms with CAA immediately & explained the registration procedures. He also detailed the schemes of BFDA.

Dr. R. N. Mishra, Associate Professor, College of Fisheries, OUAT, Rangailunda spoke on the importance of diversification of species in Aquaculture for export production. ‘Research is underway to develop the technology to farm new species. Already CIBA & RGCA(MPEDA) have developed culture technologies for seabass & mud crabs and also have successfully established hatcheries’, he said.

Technical sessions:
The inaugural session was followed by technical session. Power point presentations were made on different aspects of ‘Diversification in Aquaculture’.

I). Asian Seabass & Mud crab culture

Shri U.C. Mohapatra, Asst. Director (Aqua), MPEDA made a presentation on the Asian seabass & mud crab culture. He detailed on seabass production in cages as well as in open ponds and their culture possibilities in the district. He also highlighted the success of MPEDA’s crab demonstration conducted at Sunapur village in Ganjam District & informed the farmers on the forthcoming demonstrations of seabass & mud crab culture being taken up by MPEDA shortly.

II). Export Potential of fish based products

Dr. R. N. Mishra, Associate Professor, OUAT, Rangailunda delivered a guest lecture on ‘Export Potential of fish based products’ with power point presentation. He said that the major objectives of diversification of species were either
AQUACULTURE SCENE

to satisfy marketing and nutritional needs or to preserve some species which are disappearing and also to prevent the unsolved health problems such as diseases. He narrated the demand for the fish based products in the export market especially for cultured fin & shell fishes.

III. Adoption of BMPs in shrimp culture through Aqua societies

Dr. Anand Kumar, JTO (Aqua), MPEDA suggested co-operative approach to shrimp farming adopting BMPs which is possible only by group of farmers forming aqua societies in a cluster of farms. By forming societies, farmers can unite and prevent disease outbreaks by using healthy seeds from contract hatcheries through PCR screening. Water treatment, use of right quality feed, avoiding antibiotics, developing common infrastructures etc. are the other measures for sustainable and successful crop. Marketing of the produce in bulk was also addressed. Guidelines on aqua club formation and financial assistance from MPEDA were also discussed.

IV. Role of Dept. of Fisheries in the development of aquaculture

Shri Pabitra Kumar Behera, DFO, Jagatsinghpur made a power point presentation on the above topic. During his lecture he highlighted the current scenario of Indian Aquaculture, importance of diversification in Aquaculture, farming of new species & role of BFDA in the development of aquaculture.

The technical session was followed by group discussion where participants interacted with speakers and clarified their doubts.

Awareness Campaign on Production of High Health Antibiotic Free Shrimp Seed Organised at Gopalpur-on-sea, Ganjam (Orissa)

To create awareness among hatchery owners/managers/technicians on abuse of antibiotics in hatcheries, MPEDA, RC, Bhubaneswar organized a campaign programme on ‘Awareness on production of high health antibiotic free shrimp seed’ on 10.02.2011 at Hotel Rohini, Gopalpur-on-sea, Ganjam. 15 delegates from the shrimp hatcheries participated in the programme.

MPEDA Officials welcomed the delegates and explained the importance of conducting such programme for hatchery owners. He requested hatchery owners to give full cooperation to MPEDA officials during collection of shrimp seed samples from hatcheries for testing the presence of antibiotics under NRCP and monitoring of hatcheries programmes. The officers reminded hatchery operators about their responsibility in producing antibiotic free shrimp seeds.

Shri G.P. Mandal, Deputy Director, EIA, Bhubaneswar who was invited for the programme as Chief Guest explained the importance of Production of high health antibiotic free shrimp seeds under bio secured conditions. The importance of the quality maintenance of farmed shrimps in the present context of restrictions imposed by countries like EU was explained.

MPEDA officials also highlighted on "Adoption of code of practices in shrimp hatcheries". Coastal Aquaculture Authority Act., 2005 made it mandatory for all shrimp hatcheries to register with MPEDA as per certain norms, he said. He requested provisionally registered hatchery owners to apply for permanent registration on establishment of ETS/PCR units which are mandatory for getting permanent registration certificate. He requested hatchery operators to report MPEDA on the production and sale of seeds on regular basis.

At the end, hatchery owners had discussions with MPEDA/EIA officials on the production of antibiotic free shrimp seeds which were clarified.

Application of Biotechnology in Aquaculture

Abhilash EC, QC Lab, MPEDA- Cochin

Aquaculture continues to be the fastest growing animal food-producing sector and to outpace population growth, with per capita supply from aquaculture increasing from 0.7 kg in 1970 to 7.8 kg in 2006, an average annual growth rate of 6.9 percent. Biotechnology and aquaculture have made significant progress over the last decades "Biotechnology means any technological application that uses
biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use”. There are many areas of biotechnology that are being used in aquaculture such as transgenics, DNA bar-coding, feed sources and improved composition of the feed. Apart from this, biotechnology applied in aquaculture include: improvement of growth rates and control of reproductive cycles through hormone therapy, production of new vaccines, conserving genetic resources, enhancing unique biomedical models and development of diseases resistance in fish.

Aquatic health management is an important part in order to producing healthy aquatic animals. Detection of pathogens by biotechnology tools have a major role in the aquatic health management. In recent years, the use of PCR-related tools has gained wide acceptance in developing countries. The advent of PCR has lead to important advances in the development of routine diagnostic tests, and it has been possible to develop probes aimed at the detection of pathogen genetic material in host tissue, as well as for assessing genetic variability within and between fish and shellfish populations. Both DNA- and RNA-based methods have been devised to detect pathogen genetic material. Apart from this, ELISA, dot-blot and in situ hybridization etc are well implemented in disease management in aquaculture. Development of vaccines is another important result of application of biotechnology in aquaculture. There are vaccines and immuno-stimulants successfully used against virus infections and Vibriois. Transgenic fish are the most worthfull result of biotechnology in aquaculture. Chromosome set manipulation offers many future possibilities to increasing the quality of fish. Y-specific-DNA probes can develop a monosex species of fish and that may lead to produce desirable or more valuable species for the market. DNA bar-coding system for the species identification of fish is also a result of application of biotechnology in aquaculture. Hormone studies in aquatic animals and its application with the use of biotechnology resulted a wide development in growth and reproduction of desirable fish species. Production of antimicrobial peptides is one of the important implementation of biotechnology in aquaculture and this can help to avoid use of antibiotics in aquaculture. Biotechnology can be applied in the quality control and for more efficient and cost-effective use of inputs, such as water, seed, feed and others.
Traceability standards guide for the U.S. seafood supply chain

A new implementation guide for applying traceability standards in the U.S. seafood supply chain was announced by the National Fisheries Institute (NFI) and GS1 US at the International Boston Seafood Show.

The document, which is free and available immediately on the NFI website, was developed in collaboration by NFI, GS1 US, and U.S. seafood industry stakeholders to provide consistent, practical seafood-traceability guidance for voluntary industry-wide use. It defines minimum requirements and best-practice recommendations for tracking seafood as it moves through the supply chain from farms to processors, suppliers, distributors, retailers, and foodservice operators.

Organizations that contributed to the Traceability For Seafood: U.S. Implementation include: American Seafood, Bumble Bee Foods, Darden Restaurants, Glacier Guide Fish, Gorton’s, Handy International, Icelandic Seafoods, Inland Seafoods, North Carolina State University, Pacific Seafoods, Red Chamber, and Trace Register.

"The Traceability Guide reinforces the seafood industry's commitment to providing our customers and consumers with safe and sustainable seafood," said Steve Mavity, senior vice president of quality assurance at Bumble Bee Foods. "It will allow us to leverage GS1 standards to enhance and standardize our product tracing efforts."

The guidelines are based on the GS1 System, the world’s most widely used supply chain standards system, and apply to all types of seafood products for human consumption. The guide also applies to all levels of product hierarchy - which may include shipping logistics unit information, lots, pallets, cases, consumer items with data elements, etc. - and is relevant to all U.S. distribution channel participants, including farms, vessels, processors, suppliers, exporters, distributors, retailers, and foodservice operators.

"A tremendous amount of thinking went into this document," said Barbara Blakistone, Ph.D. director of scientific affairs at NFI. "The Traceability Guide is destined to be the benchmark for the seafood industry."

The 53-page guide includes illustrations and photographs that demonstrate precise "how-to" instructions for use of numerical identifiers, barcodes, and other standards needed for traceability.

"The seafood industry has been moving with amazing speed and clarity of purpose on this initiative," said Gay Whitney, senior vice president of industry engagement at GS1 US. "Seeing their momentum and commitment to using standards, I'm confident the initiative will pay enormous dividends to consumers and the industry alike."

The guide is free and available for download at www.aboutseafood.com/about/usseafood-traceability-implementation-guide or http://www.gs1us.org/sectors/fresh_foods/seafood.

Source: Fishnews

India's seafood exports to Japan will be hit for next 6 months

India’s seafood exports to calamity-hit Japan will be affected for next six months due to the prevailing situation there, according to industry bodies. A senior official of Marine Products Exports Development Authority (MPEDA) said many of the important cities other than Tokyo and Osaka in that country are still under duress and the lull in the Japanese retail market in devastated areas have forced exporters send small quantities. MPEDA said during 2009-10 for the first time in the history of marine product exports, the earnings crossed $ two billion. Japan, which accounts for more than 15 per cent of the Indian exports of high-value seafood products during the first nine months of the financial year was placed third after the European Union countries and the U.S.

But fears of radiation spread across Japan's northeast coast after the Fukushima nuclear power plant blast due to Tsunami and earthquake recently affecting the market. "Cargo is going to Japan. But not the way it used to be. Retail market in some parts of Japan has not recovered. Our estimation is, it will take 4-6 months for the full recovery," the MPEDA official told PTI.

Last year, seafood exports from India has crossed all previous records in quantity, rupee value and US dollar terms. Exports aggregated to 6,78,436 tonnes valued at Rs 10,048.53 crore and $ 2.1 billion. This year it may end at $ 2.4-2.5 billion.

Source: PTI/The Hindu
Finding enough fish to feed the world
Industry looks to sustainability

Seafood industry players from around the world grappled Monday with ways to net the most elusive catch of all: a solution to the problem of feeding growing appetites with ever fewer fish. The annual International Boston Seafood Show gathered nearly 900 exhibitors from 130 countries including restaurant buyers and hotels, wholesalers, processors and brokers.

With demand surging, they have the luxury of working in a booming market. The United States imports 83 per cent of its seafood and the government's publication of new anti-obesity dietary recommendations, including a doubling fish consumption, points toward Americans needing a lot more. Average seafood consumption in the United States reaches only seven kilograms a year per person, against 50 kilos for beef and 35 kilos for poultry, said Gavin Gibbons, spokesman for the National Fisheries Institute.

"The Japanese consume five to six times as much seafood as we do," Gibbons said. "Doctors and dietitians suggest that Americans should double their consumption and the U.S. secretary of agriculture has recently said that Americans should begin to replace some of their meals with seafood."

At the start of the three-day Boston trade fair attended by 20,000 people, six industry members were honoured for their efforts at promoting sustainability in the supply chain.

One of them was French restaurant entrepreneur Olivier Roellinger, vicechairman of the Relais et Chateaux chain, which was singled out for work within the industry to highlight risks facing the environment. "Olivier invited 400 chefs of Relais et Chateaux to [fisheries in] Norway to help them understand sustainability," said Jonathan Cartwright, chef at the White Barn Inn, who was accepting the prize on behalf of Roellinger. The threats to bringing seafood to the world's menus go beyond the ravages of over-fishing. Asia is seeing environmental destruction on Thailand's coasts, and a fall in shellfish and big fish populations that echo earlier catastrophes in U.S. and European waters.

Many at the trade fair feel that farming is the only way out. Farmed seafood already accounts for 50 per cent of supplies.

Environmentalists say the practice causes its own problems including the introduction of diseases and the need to harvest huge amounts of wild fish in order to feed those held in pens.

Supporters, however, say there are positive trends including fish that turn vegetarian such as the barramundi, a carnivore that can live on a largely vegetarian diet and as a result is seen by some as a champion of the "green" menu.

The next frontier could be genetically modified fish, with companies like Aquabounty waiting for regulatory approval on its modified salmon that grows twice as fast.

Source: Agence France - Presse

FDA Updates Guidance for Seafood Safety

The U.S. Food and Drug Administration has released updated guidelines to help the seafood industry reduce or eliminate food safety hazards. This is the fourth edition of the "Fish and Fishery Products Hazards and Controls Guidance." Revising the guidelines fulfills a mandate of the FDA Food Safety Modernization Act, which became law in January.

In a news release on Wednesday, FDA said key changes in the new edition include:

- Updated post-harvest treatment for pathogenic bacteria in shellfish -- including Vibrio vulnificus and Vibrio parahaemolyticus;
- Revised time and temperature recommendations to better control for scombrotoxin (histamine) formation and pathogenic bacteria;
- Information on regulations and tolerance levels that have changed since the previous edition was published;
- Hazard information on species of seafood new to the U.S. market;
- More detailed descriptions of the potential illnesses and injuries related to seafood.

The document is intended to help seafood processors create and carry out their Hazard Analysis and Critical Control Point (HACCP) plans. While it does not specifically describe safe handling practices for consumers, grocery stores or restaurants, many of the concepts would be useful.

A bound copy of the guidance can be ordered online at www.ifasbooks.com or by calling the Florida Sea Grant, IFAS-Extension bookstore at the University of Florida at 1-800-226-1764.

By Mary Rothschild
HUBANESWAR: Taiwan is keen to import seafood from Orissa and invest in electronics goods manufacturing, food processing and textiles in the state, Taiwan’s ambassador to India, Wenchyi Ong, said here on the other day.

Talking to reporters, Ong said Taiwan imports seafood worth US $500 million annually and the country will explore Orissa's export potential. "We will be interested in investing in cold storage, refrigeration and seafood processing to increase the export potential," Ong said.

The Taiwanese delegation met representatives of Orissa Seafood Export Association later in the evening. Ong is also scheduled to meet chief minister Naveen Patnaik on this count.

Leading the first ever official delegation from Taiwan to Orissa, Ong said they have come with an open mind and would invest in areas of mutual interest. "We will examine and understand the investment potential. We can invest in electronics goods manufacturing, food processing and textiles," he said. The best part of the investment is job creation. "It would be far more than the size of investment," he said. Ong, who visited KIIT University and delivered a talk on Development and Prospect of India-Taiwan Relations, said Taiwan will also look for tie-ups in education.

"We are looking for student exchange programmes and offer scholarships to students for studying in Taiwan. We are also known for our vocational education," he said.

Ong said Orissa's religious tourism will be a big attraction for Taiwanese, who are mainly Buddhists. "Over 30,000 tourists from my country came to India last year. Majority of them went to Bihar to visit Bodh Gaya. Orissa has several Buddhist monuments. These could attract Taiwanese tourists," he said. Taiwan’s total investment in India is around US$ 1 billion which is confined mainly to five states: Tamil Nadu, Maharashtra, Delhi, Gujarat and Andhra Pradesh.

Source: Times of India OE

---

Aquaculture For A Changing World

BRAZIL - World Aquaculture 2003 in Salvador de Bahia was one of the most highly attended World Aquaculture Society (WAS) meetings ever held. On June 7 - 10, 2011, the WAS, in conjunction with Fenacam, will once again hold a World Aquaculture meeting in Brazil; this time in the northeast city of Natal with its beautiful beaches, and diversified aquaculture sectors.

For this meeting, attendance is expected in excess of 3,000 participants, representing over 50 countries. The 4-day program will host in excess of 60 sessions complementing general categories such as: Aquaculture and Human Health, Crustacean Culture, Finfish Culture, Mollusc Culture, Aquaculture for a Changing World, Production Systems, and Feedstuffs-Feeds-and Feed Additives; finishing up with assorted Special Topics including genetics, education, engineering, economics, and much more.

These sessions will be augmented with a Farmers Day/Industry Program including a Fenacam Shrimp Farmers Session, and a Finfish Farmers Session with an emphasis on Tilapia, Recirculating Systems, and Marketing. There will also be a series of short-courses available before the conference on June 6th including: Biofloc Technology, Marine Ornamental Species, Shrimp Infectious myonecrosis Virus (IMNV), and Job Opportunities for the Aquaculture Professionals.

An exciting and highly represented trade show and exhibition will also be held in conjunction with this meeting, with over 95 per cent of booths, representing over 200 companies from more than 30 different countries, already sold. For more information on the conference and trade show please see www.was.org or contact Mario_stael@scarlet.be. Complementing this tremendous aquaculture event is an array of exciting farm tours which are planned both before and after the conference, with specific dates and details available at www.fenacam.com.br.

TheFishSite News Desk
Indian fishermen seek more time to stop fishing in Sri Lankan waters

A delegation of fishermen from Tamil Nadu pleaded with their counterparts from north Sri Lanka to give them more time to stop fishing in the Sri Lankan territorial waters. The Sri Lankan fishermen, who also speak the same language, said they were in no position to grant such a concession. The meeting ended with both sides holding on to their stated positions. There was no meeting point.

The Tamil Nadu fishermen said they were being trained by the Government of India and the fisheries development arm of the government, the Marine Products Export Development Authority (MPEDA), in tuna fishing. The fishermen from Pudukottai, Ramanathapuram, Rameswaram and Nagapattinam were willing to venture into deep-sea fishing and in the process of the learning tuna fishing and other deep-sea fishing techniques. Once this was done, they would not venture into the Sri Lankan waters.

Members of the Tamil Nadu delegation who spoke at the meeting, to which The Hindu was invited by the Sri Lankan side, wanted the Sri Lankan fishermen to give them more time: tuna fishing could not be learnt in a few days and investments were heavy. Hence, they wanted the Sri Lankan fishermen to be a little more patient and understanding. There were many other schemes of the Government of India.

Large-scale fishing comes under fire at Tuna meet

The 15th Session of the Indian Ocean Tuna Commission (IOTC) concluded in Colombo recently. The session was attended by over 250 delegates and observers from nearly 35 countries in the Indian Ocean Region and beyond - the European Union, Japan, Korea, France, Taiwan and China, according to a report in the Asian Tribune.

The Lankan Minister of Fisheries and Aquatic Resources, Dr. Senaratne, addressing the session, criticised the industrial scale fishing that was being carried out in the Indian Ocean which was depleting tuna stocks in the Indian Ocean. He urged the session to decide on exploiting fish stocks in a fair and equitable way while ensuring their sustainability.

He pointed out that the much improved so-called 'super seiners' have been designed and built in many parts of the world to hunt the already depleted fish stocks in oceans with much force. He said that as per the Food and Agriculture Organisation (FAO) more than 75 per cent of the marine stocks are over-fished, and another 12 percent are fully utilised.

The IOTC is an intergovernmental organisation established under Article 14 of the FAO and mandated to manage tuna and tuna like species in the Indian and adjacent seas. Presently there are 28 members in the IOTC and they are Australia, Belize, China, Comoros, Eritrea, European Union, France, Guinea, India, Indonesia, Iran, Japan, Kenya, Republic of Korea, Madagascar, Malaysia, Mauritius, Sultanate of Oman, Pakistan, Philippines, Seychelles, Sierra Leon, Sri Lanka, Sudan, Tanzania, Thailand, United Kingdom and Vanuatu. The Cooperating Non-Contracting Parties in the IOTC are Maldives, Senegal, South Africa and Uruguay.

"No fisherman wants to be killed. All of us are in the same situation. We all take loans, we all starve and we all go where we find fish," said Arulanandam, leader of the Tamil Nadu delegation. As much as 70 per cent of the fishermen were trained in tuna fishing. Initially, the seven-member delegation expressed their views to the lone Tamil Minister in the Sri Lankan cabinet, Douglas Devananda. He told them that they should speak directly to their counterparts across the Palk Strait and come to some decision.

The Sri Lankan side was clear that they did not want the Indian fishermen in its territorial waters. "Allow us to live:" this was the general refrain by all who spoke. They had just begun fishing after a very long time and they did not want their resources to be laid to waste by bottom trawling, just as the Indians had done on the Indian side of the territorial waters. Representatives of fishermen from all the northern districts participated.

At the meeting between the two sides, Mr. Devananda made it clear that he was a mere observer. He wanted the two sides to meet and discuss to find out if a solution was possible. "I have heard the same argument on both sides. Let us not keep thinking about a distant future. Even the next moment is part of our future," he said.

The Indian and Sri Lankan sides wanted the fishermen of two sides to meet ahead of the Joint Working Group on fisheries meeting, slated to be held in New Delhi. The Indian side had attached great secrecy to the meeting. One member, who spoke, said this was because Assembly elections were due in Tamil Nadu and they did not want anything to emerge that would embarrass the government.

Source: The Hindu OE
**Soya-based fish feed accelerates growth: Expert**

Fish as food can not only help generate employment and incomes for the rural population, but also help fight pervasive protein deficiency in the country. This was the message during an interactive meeting between fish feed producers and aquaculture experts representing the American Soybean Association (ASA), in the presence of local media representatives.

According to Dr Michael Cremer, global aquaculture technical director of ASA, feed-based technologies in practice in some of the Asian countries have shown beyond doubt that soya-based fish feeds have delivered immense commercial benefits. The work done so far in India has resulted in the country emerging as a significant producer of soya-based extruded floating feeds and sinking pellets for fish. "Indian entrepreneurs have invested in imported extrusion machinery to produce floating fish feeds," said Dr Vijay Anand, technical director of ASA’s Asia subcontinent aquaculture programme.

Currently, there are as many as seven feed mills with installed capacity of 72 tonnes an hour which is set to soon expand to 203 tonnes an hour. Soyabean meal is the main source of protein in the formulations and the incorporation levels are in the 35-45 per cent range. Other ingredients used include rice-bran, broken rice, wheat bran, wheat flour, corn gluten meal and copra meal.

Conceding that feed is only a part of aquaculture value chain, the aquaculture industry needs species diversification - in addition to the current carp and Pangasius - improved hatchery technology, refinement of farming system, diversification of farming system and improved fish marketing for better consumer acceptance, Dr Cremer said.

Earlier in the day, this correspondent was witness to harvesting of a record 20,000 kg of fish - each weighing one kg on an average - by renowned feed-makers Growel Feeds from a leased pond near Gudivada. The fish were fed soya-based feed. India’s fish production is approximately 8 million tonnes and the fisheries sector provides employment to about 15 million persons. Given that we have 7,000-km-long coastline and the biodiversity, the potential offered by fisheries sector is immense.

Source: Chandrasekhar, Business Line

---

**45-day annual fishing ban begins along east coast**

RAMANATHAPURAM: The 45-day annual ban on fishing begun in different coastal parts of the Tamil Nadu State. Almost all 700 mechanised boats at Rameswaram were anchored at the fishing harbour. Similarly, boats at Mandapam and Pamban also did not venture into the sea. Fisheries officials asked the fishermen to cooperate with the department in the efforts to increase fish wealth during the fishing holiday.

During the period, mechanised boats and trawlers will be prohibited from going for fishing, according to the fisheries officials. The ban on fishing on the high seas will be lifted on May 30.

The ban will be enforced along the east coast from Thiruvallur to Kanyakumari districts.

The fishing holiday was imposed during the period because this happened to be the breeding season for fishes. Such a ban, therefore, was intended to enrich the marine wealth that in turn would be beneficial to fishermen later. However the ban will not be applicable to the country boat fishermen, who go for fishing close to the shore.

Source: The Hindu
Seafood exports may ride on temblor wave

The earthquake and tsunami that struck northern Japan could prove to be a boon to the Indian seafood industry. After an initial hiccup immediately after the disaster, there has been a marked improvement in enquiries and demand for Indian seafood from Japanese importers, sources in the Seafood Exporters Association of India (SEAI) said. However, it is still early days and the sources were not willing to evaluate the long-term implications for the Indian industry. There has been a marked improvement in demand for surumi from India, a delicacy in Japan. It is one of the mainstays of exporters such as Ulka Seafood, Hindustan Unilever, Silver Seafood and Naik Exports, SEAI sources said. Fears that radioactive particles could have contaminated food supplies in Japan are expected to push up seafood imports.

There are reports of depleted stocks of seafood items on the shelves of Japanese stores which have also generated fresh demand for imports. Fall in marine production as well as lower seafood exports from Japan have also kindled price rise in South East Asia. Post the earthquake and the tsunami, there has been a 30 per cent increase in prices in the markets of Japan, Hong Kong and China, an exporter focusing on dried seafood said.

However, the import demand from Japan is not restricted to high value items such as black tiger shrimps alone this year but extends to low value seafoods too. Enquiries for frozen and chilled fish exports have been on the rise as well, sources in the trade said.

Japan was fifth in India’s seafood exports after the European Union, the US, South East Asia and China last year. This was despite an increasing trend in all seafood exports to Japan, other than chilled items last year. Seafood exports to Japan registered a growth of 11 per cent in quantity and 36 per cent growth in dollar earnings last year. This year, seafood exports to Japan are expected to improve further, including chilled items, mainly due to lower domestic production and increased demand for value addition and re-exports. Japan accounted for 14 per cent of the country’s $2.67 billion seafood exports in 2010-11.

Over 1.5 lakh fishermen being covered under insurance scheme in state

Madhya Pradesh: With a view to giving social security to fishermen engaged in fish farming, accidental insurance is being done for them and their families. A total 1,98,122 fishermen and family members have been covered under group insurance scheme. This figure is just doubled as compared to the statistics of last year.

Madhya Pradesh has ranked second for covering fishermen under social security in the country. In the event of death of fisherman or other family member, an amount of Rs one lakh is provided and Rs 50 thousand on permanent disability.

In order to promote fish farming, fishermen are being sanctioned loan at the rate of three percent. For this, fishermen credit cards are being provided to them. 1,777 fishermen credit cards have been provided to them in the state so far.

Source: centralchronicle.com
Aqua 2012 : Global Aquaculture - Securing Our Future

The boards of directors of the European Aquaculture Society (EAS) and the World Aquaculture Society (WAS) have the pleasure to announce that the AQUA 2012 event will take place in the Czech Republic capital, Prague, from September 1-5, 2012.

The AQUA events are co-organised by EAS and WAS every six years, and AQUA 2012 succeeds the 2006 event in Florence, Italy and the 2000 event held in Nice, France. The event comprises an international scientific conference, an international trade exhibition, workshops for aquaculture producers, forums organised by students and by the European Commission Directorate General for research and many other satellite workshops and meetings.

The previous AQUA events each attracted more than 2,000 participants from over 50 countries, showing the global importance of aquaculture and specifically this event.

The theme “Securing our Future” has several aspects. It has obvious implication in global and regional food security and aquaculture trade, placing aquaculture products in the global fisheries market. It also refers to economic and environmental sustainability and the image of aquaculture activities. A spokesperson for AQUA 2012 said: “Our future is what we make of it now – how we alleviate poverty; how we manage our future resource needs and especially how we educate, train and manage knowledge for the next generation of aquaculture researchers, producers and other stakeholders.”

AQUA 2012 Programme co-chairs Marco Saroglia, José Polanco and Zdenek Adamek have put together a vast programme of more than 50 technical sessions that will be open for abstract submission.

Major pillars of the technical programme include environment, biodiversity and climate change; aquaculture certification; aquaculture and human health; production systems; feedstuffs, feeds and feed additives; molluscs and other Invertebrates; marine shrimp; general finfish culture; freshwater fish culture; marine fish culture; seaweeds; ornamentals; aquaculture economics; animal welfare, health and diseases; breeding and genetics and other specialised topics.

The programme therefore covers many aspects of the global aquaculture value chain for contribution by authors from all over the world.

Following the approval of the location by EAS and WAS Boards, Michael New OBE, chairman of the AQUA 2012 steering committee, said: “After somewhat delicate discussions over the past two years with our partners and authorities in St. Petersburg, Russia and subsequently in Sharm El Sheikh, Egypt, the approved location in Prague is for me definitely not a ‘third choice’ location.

“We just hadn’t considered it in our earliest discussions. After visiting Prague for the first time early this year, I was taken in by its beauty and fascinated by the centuries-old tradition of aquaculture, pond and water management in the Czech Republic. Prague is at the centre of Europe. It is an easy location to fly or drive to and the congress centre is close to the centre, with excellent metro links stopping in front of the building and with an extremely wide choice of luxury and budget hotels within easy reach.”

Further information on AQUA 2012 will be published on the web sites of EAS and WAS, with abstract submission and registration available online within the coming weeks.

Fisheries body and ICAR to establish fish processing centre in Himachal

The National Fisheries Development Board (NFDB) and the Indian Council of Agricultural Research (ICAR) are setting up a fish processing centre in Patlikuhal, Himachal Pradesh.

The centre will exclusively work for processing fish at industrial level to preserve it for longer time as fresh as original. It is said to be the first centre in the periphery of 1,000 km area in the Kullu district of Himalayan region.

NFDB has initially allocated Rs 2.1 crore budget for the project. The proposed centre will work to empower fish farmers in two ways, firstly by preserving the fishes for months it will trail the way for fish export from the state and secondly it will maintain profitable prices for the farmers throughout the year.

The centre will produce three products - chilled whole-gutted trout for domestic market, frozen whole-gutted trout for export market and fish silage from wasteshelf life of six months.

- Agencies
**Chilika Fishery on a recovery path?**

Bhubaneswar: Fisheries, which occupy a prime position amongst all the natural resources of Chilika lake, have started showing signs of recovery after recording low catch for years. Supporting the livelihood of more than two lakh fisherfolks living in and around the lake, the fish fauna of Chilika lake is characterized by the composite of freshwater, brackish and marine elements. The fisheries in the lake started declining rapidly in late 1980s following ecological degradation of the lake. The highest landing of 8872 MT was recorded in 1986-87 (pre restoration period) that declined to touch the nadir with all time low of 1274 MT in 1995-96, official sources said today. In addition to the decline of the catch the decline of the species diversity was also encountered, a senior official of Chilika Development Authority (CDA) said. The hydrological intervention for restoration of Chilika lake with opening of a new mouth in 2000 resulted in significant recovery of the lake fishery. Following this in 2000-01 there was a sudden leap of fish yield from a meagre 1745 MT in 1999-2000 (prior to opening of the mouth) to 11,989 MT in 2001-2002 (about 7 fold increase) and the rising trend continued till it touched the all time high of 14,053 MT in 2003-2004, showing 8 fold increase in comparison to pre-restoration year (1999-2000). The average fish landing during 2001-02 to 2009-10 has been 11,676 MT per annum showing a significant increase of 569 per cent over the pre restoration year (1999-2000). During this financial year the annual production from the lake is likely to exceed 12000 mts mark, sources said. Along with productivity, fish diversity of the lake also improved after restoration. As per the assessment carried out recently the species diversity stands at 317 fish, 28 prawns and shrimps, 35 brachyuran crabs (12 species being edible) and 2 spiny lobsters, they said.

Source: PTI

---

**PRICE LIST OF MPEDA PUBLICATIONS / PERIODICALS**

<table>
<thead>
<tr>
<th>PERIODICALS</th>
<th>Annual Subscription (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PRIME WEEKLY (PRICE INDICATOR FOR MARINE PRODUCTS)</td>
<td>350.00</td>
</tr>
<tr>
<td>2. MPEDA NEWSLETTER</td>
<td>300.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUBLICATIONS</th>
<th>Price per copy (postage extra)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. CHART ON COMMERCIAL FISHES OF INDIA</td>
<td>75.00</td>
</tr>
<tr>
<td>4. CHART ON ORNAMENTAL FISHES OF INDIA</td>
<td>75.00</td>
</tr>
<tr>
<td>5. MPEDA ACT, RULES &amp; REGULATIONS</td>
<td>25.00</td>
</tr>
<tr>
<td>6. STATISTICS OF MARINE PRODUCTS 2007</td>
<td>250.00</td>
</tr>
<tr>
<td>7. SEAFOOD DELICACIES FROM INDIA</td>
<td>100.00</td>
</tr>
<tr>
<td>8. INDIAN FISHERY HAND BOOK</td>
<td>250.00</td>
</tr>
<tr>
<td>9. AN ILLUSTRATED GUIDE ON COMMERCIAL FISHES AND SHELL FISHES OF INDIA</td>
<td>125.00</td>
</tr>
<tr>
<td>10. PRODUCT CATALOGUE</td>
<td>150.00</td>
</tr>
<tr>
<td>11. HANDBOOK ON ORNAMENTAL FISH DISEASES</td>
<td>50.00</td>
</tr>
<tr>
<td>12. WATER QUALITY IN THE ORNAMENTAL AQUATIC INDUSTRY - SERIAL 1</td>
<td>125.00</td>
</tr>
<tr>
<td>13. INTERNATIONAL TRANSPORT OF LIVE FISH IN THE ORNAMENTAL AQUATIC INDUSTRY - SERIAL 2</td>
<td>125.00</td>
</tr>
<tr>
<td>14. LIVE FOOD CULTURE FOR THE ORNAMENTAL AQUATIC INDUSTRY - SERIAL 3</td>
<td>125.00</td>
</tr>
<tr>
<td>15. BIOSECURITY IN THE ORNAMENTAL AQUATIC INDUSTRY - SERIAL 4</td>
<td>125.00</td>
</tr>
</tbody>
</table>